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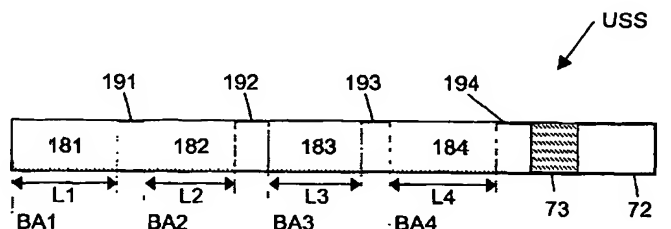
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(54) Title: METHOD FOR DIVIDING USER STORAGE SPACE OF AN OPTICAL DISC, OPTICAL DISC HAVING DIVIDED STORAGE SPACE, AND METHOD AND DEVICE FOR STORING INFORMATION



A

N	4	
1	BA1	L1
2	BA2	L2
3	BA3	L3
4	BA4	L4

B

(57) Abstract: A method is described for writing an optical disc (2) having a user storage space (USS). The method comprising the steps of dividing the storage space of an optical disc (2) into, on the one hand, one or more sections (80; 181, 182, 183, 184) where an application is allowed to write and, on the other hand, one or more sections where it is not allowed to do so. The location and extent of the allowed section(s) is either fixed in format or determined by one or more parameters (BA, L, VAPT) stored on disc. A signal processing system (120) of a video recorder apparatus (100) is designed, before attempting a write operation to a disc (2), to determine the allowed storage area (VASS) for the present disc, and to select free area (72) for writing only within the allowed storage area.

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/00982 A (KONINKL PHILIPS ELECTRONICS NV ; PHILIPS SVENSKA AB (SE)) 6 January 2000 (2000-01-06) the whole document	1-3, 7, 11, 13-17
A	EP 1 267 266 A (SHARP KK) 18 December 2002 (2002-12-18) the whole document	1, 7, 13, 14
A	US 5 734 787 A (YONEMITSU JUN ET AL) 31 March 1998 (1998-03-31) column 7, line 1 - line 20 column 16, line 20 - column 18, line 15; table 2	1, 7, 13, 14

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 198 877 B1 (KAWAMURA MAKOTO ET AL) 6 March 2001 (2001-03-06) column 4; line 26 - column 5, line 8; figure 3	1,7,13, 14
A	----- EP 1 065 665 A (TOKYO SHIBAURA ELECTRIC CO) 3 January 2001 (2001-01-03) figure 4	1,7,13, 14
A	----- "DVD Read-Only Disk File System Specifications" February 1998 (1998-02), ECMA TECHNICAL REPORT, XX, XX, PAGE(S) A-D,II-IV,1-67 , XP002123679 page 65 - page 67 -----	1,7,13, 14

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 03/05722

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0000982	A	06-01-2000	CN 1467638 A CN 1114167 B EP 1040480 A2 WO 0000982 A2 JP 2002519794 T NO 20000946 A TW 511076 B US 6526475 B1	14-01-2004 09-07-2003 04-10-2000 06-01-2000 02-07-2002 05-04-2000 21-11-2002 25-02-2003
EP 1267266	A	18-12-2002	JP 2001243096 A CA 2400870 A1 EP 1267266 A1 CN 1426556 T WO 0163419 A1 US 2003076764 A1	07-09-2001 30-08-2001 18-12-2002 25-06-2003 30-08-2001 24-04-2003
US 5734787	A	31-03-1998	AU 681259 B2 AU 1824595 A BR 9505853 A CA 2160913 A1 CN 1305183 A CN 1332442 A ,C CN 1115076 A ,B CN 1124062 A ,B DE 69531265 D1 DE 69531265 T2 EP 1336963 A2 EP 0673034 A2 EP 0696799 A1 JP 7311950 A WO 9524037 A1 PL 311310 A1 PL 179264 B1 SG 24104 A1 US RE37327 E1 US RE38481 E1 US 5592450 A US 5596565 A US 5745505 A	21-08-1997 18-09-1995 21-02-1996 08-09-1995 25-07-2001 23-01-2002 17-01-1996 05-06-1996 21-08-2003 03-06-2004 20-08-2003 20-09-1995 14-02-1996 28-11-1995 08-09-1995 05-02-1996 31-08-2000 10-02-1996 14-08-2001 30-03-2004 07-01-1997 21-01-1997 28-04-1998
US 6198877	B1	06-03-2001	JP 3493822 B2 JP 9050675 A AT 239295 T BR 9603280 A CA 2182648 A1 CN 1152168 A DE 69627766 D1 DE 69627766 T2 EP 0757349 A2	03-02-2004 18-02-1997 15-05-2003 12-05-1998 05-02-1997 18-06-1997 05-06-2003 18-03-2004 05-02-1997
EP 1065665	A	03-01-2001	JP 3389086 B2 JP 11238362 A JP 3389087 B2 JP 11238316 A JP 3389089 B2 JP 11238318 A EP 1065665 A1 US 6549721 B1	24-03-2003 31-08-1999 24-03-2003 31-08-1999 24-03-2003 31-08-1999 03-01-2001 15-04-2003

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 03/05722

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1065665 A		US 6505964 B1	14-01-2003
		US 6556772 B1	29-04-2003
		US 6522833 B1	18-02-2003
		US 2004081431 A1	29-04-2004
		US 2002071659 A1	13-06-2002
		US 2002025135 A1	28-02-2002
		US 2002025136 A1	28-02-2002
		US 2002031329 A1	14-03-2002
		WO 9943000 A1	26-08-1999
		US 2002015581 A1	07-02-2002